What is claimed is:

1. A stereoscopic microscope comprising:

a common close-up optical system that faces an object, said close-up optical system having a single optical axis;

a pair of zoom optical systems that take object light rays passing through the different regions of said close-up optical system, respectively, to form a pair of primary images, the optical axes of said zoom optical systems being parallel to the optical axis of said close-up optical system;

a pair of field stops that are arranged at the positions of said primary images;

a pair of relay optical systems that relay said primary images to form a pair of secondary images;

an inter-axis distance reducing element that brings the object light rays from said relay optical systems close to each other;

an image taking device that captures said secondary images formed on an image taking surface thereof; and

an illuminating optical system that guides illumination light emitted from a light source to illuminate said object.

2. The stereoscopic microscope according to claim 1, wherein the diameter of said close-up optical system is set to be larger than the diameter of a circle that includes the maximum effective diameters of said zoom optical systems and the maximum

effective diameter of said illuminating optical system.

3. The stereoscopic microscope according to claim 1, wherein each lens of said close-up optical system has a semicircular shape in which one side is cut out, and wherein said illuminating optical system is arranged in the cutout space of said close-up optical system.

4. The stereoscopic microscope according to claim 1, wherein said close-up optical system comprises a first lens group of a negative refractive power and a second lens group of a positive refractive power arranged in that order from the object side, and wherein said second lens group is movable along the optical axis direction for focusing according to the object distance.

5. The stereoscopic microscope according to claim 1, wherein said close-up optical system satisfies the following condition (1);

(1) $f_A > 500$

where f_A is a focal length (unit: mm) of the close-up optical system.

6. The stereoscopic microscope according to claim 1, wherein a plane that includes optical axes of said zoom optical systems is offset in parallel from a meridional plane of said close-up

optical system.

7. The stereoscopic microscope according to claim 1, wherein each of said zoom lens systems comprises a first lens group of positive refractive power, a second lens group of negative refractive power, a third lens group of negative refractive power, and a fourth lens group of positive refractive power, in that order from the side of said close-up optical system, and wherein said second lens group and said third lens group move for zooming along the optical axis direction while keeping said first lens group and fourth lens group at constant positions.

8. The stereoscopic microscope according to claim 1, wherein each of said relay optical systems comprises a first lens group of positive refractive power, a second lens group of positive refractive power, and a third lens group of positive refractive power, wherein said first lens group and said second lens group collimate the divergent light passing through said field stops in combination and said third lens group converges the parallel light rays exited from said second lens group.

9. The stereoscopic microscope according to claim 8, wherein each of said relay optical systems includes an aperture stop for controlling an amount of light passing therethrough located

between said second lens group and said third lens group of said relay optical system.

10. The stereoscopic microscope according to claim 1, wherein said relay optical systems satisfy the following condition (2);

(2) $-3 < M_R < -1$

where M_R is imaging magnification of the relay optical systems.

11. The stereoscopic microscope according to claim 1, wherein said inter-axis reducing optical element comprises a pair of optical axis shifting prisms, each of the optical axis shifting prisms being provided with incident and exit surfaces that are parallel to each other and first and second internal reflecting surfaces that are parallel to each other.

12. The stereoscopic microscope according to claim 1, wherein said illuminating optical system comprises an illumination lens for projecting the illumination light emitted from said light source and a wedge prism for deflecting the illumination light to coincide the illuminating region with the image taking region.

13. A stereoscopic microscope comprising:

a common close-up optical system that faces an object,

said close-up optical system having a single optical axis;

a pair of imaging optical systems that take object light rays passing through the different regions of said close-up optical system, respectively, to form a pair of images, the optical axes of said imaging optical systems being parallel to the optical axis of said close-up optical system;

an image taking device that captures said images formed on an image taking surface thereof,

wherein said close-up optical system satisfies the following condition (1);

(1) $f_A > 500$

where f_A is a focal length (unit: mm) of the close-up optical system.

14. The stereoscopic microscope according to claim 13, wherein said imaging optical system comprises:

a pair of zoom optical systems that take object light rays passing through the different regions of said close-up optical system, respectively, to form a pair of primary images, the optical axes of said zoom optical systems being parallel to the optical axis of said close-up optical system;

a pair of field stops that are arranged at the positions of said primary images;

a pair of relay optical systems that relay said primary images to form a pair of secondary images; and

an inter-axis distance reducing element that brings the object light rays from said relay optical systems close to each other.

15. A stereoscopic microscope comprising:

a common close-up optical system that faces an object, said close-up optical system having a single optical axis;

a pair of zoom optical systems that take object light rays passing through the different regions of said close-up optical system, respectively, to form a pair of primary images, the optical axes of said zoom optical systems being parallel to the optical axis of said close-up optical system;

a pair of field stops that are arranged at the positions of said primary images;

a pair of relay optical systems that relay said primary images to form a pair of secondary images; and

an image taking device that captures said secondary images formed on an image taking surface thereof,

wherein said relay optical systems satisfy the following condition (2);

(2) $-3 < M_R < -1$

where M_R is imaging magnification of the relay optical systems.